



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,603	02/28/2002	Anita Orhand	PF010026	1956
7590	08/24/2005		EXAMINER	
JOSEPH S. TRIPOLI THOMSON MULTIMEDIA LICENSING INC. 2 INDEPENDENCE WAY P.O. BOX 5312 PRINCETON, NJ 08543-5312			SENFI, BEHROOZ M	
			ART UNIT	PAPER NUMBER
			2613	
DATE MAILED: 08/24/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/086,603	ORHAND ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Behrooz Senfi	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 26 May 2005.  
 2a) This action is **FINAL**.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-20 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-17, 19 and 20 is/are rejected.  
 7) Claim(s) 18 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Specification***

1. The abstract of the disclosure is objected to because; it has to be in a single paragraph. Correction is required. *See 37 CFR 37 § 1.72(b).*

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 7, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. *See MPEP § 2173.05(d).*

***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3, 5 – 6, 8 – 10 and 19 – 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Katata et al (US 6,088,061).

Regarding claims 1 and 19 - 20, Katata '061 discloses, MPEG "block wise coding of digital video images (i.e. fig. 1) in which each block is assigned a specific resolution dependent on a zone in which this block is located, an image comprising at least two zones to which different resolution are assigned, characterized in that the mixed blocks

straddling two zone of different resolutions are detected, and zone corresponding to each pixel of these mixed blocks is determined so as to construct mixed blocks by allocating the resolution of this specific zone to this pixel to get constructed mixed blocks and to code the constructed mixed blocks" reads on (foreground and background, which have different resolution, background image is consider as lower layer and foreground or part images are consider as upper layer, and the predicted block is the mixed blocks , col. 17, lines 29 – 40).

Regarding claims 3, 5 - 6 and 8- 10, Katata '061 discloses, "coding of a base layer and of an improvement (enhancement) layer ..... in claim 3" reads on (i.e. figs. 5 and 6) and "base layer and improvement layer being determined separately, the allocation of resolution to the pixels of a mixed block is performed by taking account both of the base and of the improvement layer, claim 5" (i.e. fig. 6, abstract), and "the improvement layer of the mixed block is determined by deducting the base layer from this mixed block whose pixels are coded according to different resolution, claim 6" (i.e. col. 17, lines 35 – 40), and "mixed block is allocated the lowest of the resolutions of the zones which it contains and that in the course of a second step the resolution of the pixels of this block lying in a zone of higher resolution, claim 8" (i.e. predicted block is the mixed blocks , col. 17, lines 29 – 40), and "the lowest resolution is obtained either via the base layer, or via the combination of the base layer with at least one improvement layer, claims 9 - 10" (i.e. col. 17, lines 35 – 40).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 11 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katata '061 in view of Li (US 2002/0051488).

Regarding claim 2, Katata '061 teaches, "MPEG blockwise video coding, and detecting different zones resolution" as discussed in claim 1 above. Katata '061 teaches MPEG encoding. But does not particularly specify the type of MPEG. However, MPEG4 is known in the prior art of the record for shape and texture coding, as evidenced by Li '488 (i.e. page 1, section 0005). Therefore it would have been obvious to one skilled in the art at the time of the invention was made to specifically use MPEG4 for purpose of shape and texture coding of video image.

Regarding claims 11 - 12, combination of Katata '061 and Li '488 teaches, "mixed block comprising two adjacent zones ..... claim 11" (i.e. page 1, section 0011 of Li), and "quantization interval used to code zones of lowest resolution" (i.e. col. 10, lines 25 – 28 of Katata).

Regarding claims 13 - 16, the limitation "the closer the pixels of the first zone are to the second zone, the more their resolution increased, claim 13" are within the scope of the katata reference. Since it is known that, those pixels of the lower (first) zone that are closer to the upper (enhancement) zones have higher resolution, and "intermediate

resolution is allocated to all the pixels of the first zone, in claim 14" (i.e. fig. 2, H1, intermediate layer); and intermediate resolution of each pixel of the first zone is a linear function of the distance of this pixel from the second zone, in claim 15 and 16" it is a common knowledge that intermediate pixel/pixel between the first zone and the second zone have a liner function with respect to the distance to each zones.

Regarding claim 17, combination of Katata '061 and Li '488 teaches, the claimed "using mask for reproducing the shape ....." (i.e. fig. 1 – 6, and abstract of Li).

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katata '061 in view of fig. 1 of applicant admitted prior art.

Regarding claim 7, the limitations "transforming data of frequency domain to spatial domain" as claimed are within the scope of video processing of Katata '061 reference. Katata '061 does not specifically show the customary way of processing "image is coded via data or coefficients in the frequency domain, for example via a transformation of the cosine transform type, and in that to allocate to each pixel of the mixed blocks the resolution which corresponds to its zone, the data of the frequency domain are retransformed into the spatial domain, and, after the allocation of resolutions, these data are retransformed into the frequency domain" as claimed.

However the above features are notoriously well known to one skilled in the art at the time of the invention was made, as evidenced by fig. 1, of applicant admitted prior art for converting the video signal from frequency domain to spatial domain and back to the frequency domain.

7. Claim 4, is rejected under 35 U.S.C. 103(a) as being unpatentable over Katata '061 in view of Jiang (US 2002/0118743).

Regarding claim 4, Katata '061 teaches "MPEG block-wise video coding, and predictive coding, which is a differentiate coding (col.22, lines 30 – 45). Katata '061 does not explicitly mentioned "residual used ... to define the improvement layer". However, such features are well known and used in the prior art of the record as evidenced by Jiang (i.e. fig. 1, 14 and page 2, section 0030, residual calculator). Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to calculate residual differences between the base and enhancement layer to define the enhancement layer based on the residual difference.

#### Allowable Subject Matter

8. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(571) 272-7339**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mehrdad Dastouri** can be reached on **(571) 272-7418**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**Or faxed to:**

**(571) 273-8300**

Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, Va. 22314.

Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

B. M. S. 

8/8/2005

  
VULE  
PRIMARY EXAMINER

8/19/05